

EXHIBIT B

ABBOTT LABORATORIES
RESEARCH DEPARTMENT

BOOK 17. 68, 160

PROJECT

HIV combo Assay

EXP. OR CODE NO.

Ab, Ag Blended up and Conj.

This is the

first demon-

stration of a

combination

antibody/Ag

test for HCV.

Cont. on pg #10

1023 6 VCOMBO ASSAY

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Blended Up and Blended conjugate

Up: HC31 (DF=3 Coating conc: 200ug/ml) + C11-14 (0.09% 0.4μm)
 Conjugate: C11-10 (100ng/ml 1:16) + 6A52B (1/5dilution In HIV combo CD)

Washes: HIV ag transfer wash Dev lot 5/ final wash : HCV Ag prep.

SDB: 6A52Q

Up diluent: 18498 HCV Ab assay up diluent

S/A configuration: HCV

Samples	SubA	SubB	Combo Assay Mean counts	PIN	Ab Assay Mean Counts	PIN	Ag Assay Mean counts 08/24/00	PIN
PC (Ab)	1502	1023	1712.5	2.117	4818.75	1.23	4409.83	55.82
NC (Ab)	808	852	780		38800.87	9.36	6980.5	88.36
	755	745	719	0.91	147307.5	37.46		
	719	1083	1110	1.41				
	9765	9035	9410	11.91				
	972	6237	8104.5	10.26				
99800	1157	1083	8094.5	3.92				
Panel A	9765	9035	5268.5	6.68				
E2 1/20 dil	2550	3639	870.5	1.10				
Promed 8992161	5227	5280	899	2.36				
PC JV 016929	842	1773	1883.5	3.17				
PC JV 017220	1954	2463	2507.5	1704.5				
Sero-Tec panel #3	4	2552	3507	1716.5	0.44	5071	94.19	
	5	3808	3507	3556.5	0.43	4258	94.19	
	6	2882	3120	3001	1507.5	0.38	2853	94.19
	7	2055	2280	2172.5	1671.5	0.43	4829	94.19
	8			3707	1665	0.42		
	9							

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As the first Blend up and Conj. results are encouraging. Dilute Conj more
 for next run.

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Catherleen Foon

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PROJECT

HCV combo Assay

EXP. OR CODE NO.

Cont. from page #8

DESCRIPTION OF PANEL MEMBERS -

NC - negative control - pooled plasma individually screened as negative for HCV antibodies by a commercialized assay. Code: 6A52E. Prism HCV Ab Assay Negative Calibrator.
 PC - positive control - pooled anti-HCV positive plasma diluted in negative control. Code: 6A52F. Prism HCV Ab Assay Positive Calibrator.

99800 - Plasma(human) Recalcified Negative Bulk.

Panel A - an anti-HCV positive plasma that has been diluted in negative control to provide a mid range sample to cutoff in the PRISM antibody assay.

E2 1/20 - an anti-HCV positive sample that has been diluted in negative control - the E2 antibody panel was utilized to titrate the potency of HCV E2 antigen coated microparticles

ProMed 9992161 - an antibody positive sample obtained from ProMeDx (Plainville, MA)

PC JV 16929 - Sero-Tec HCV RNA positive human plasma .
 PC P JV17220 - Sero-Tec HCV RNA positive human plasma .

SeraTec Panel members 3-9 - serial bleeds obtained from a plasma donor identified at SeraTec as being anti-HCV negative and HCV antigen positive.

A panel of specimens previously characterized as having antibodies to HCV or being negative for antibodies to HCV but positive for HCV RNA and HCV antigens were tested in a preliminary HCV combination antibody/antigen test.

Reagents utilized in combo test

Microparticles specific for HCV antigen detection (up's coated with C11-14 as described on RB: 67093 page 100) and microparticles specific for HCV antibody detection (up's coated with HCV recombinant protein HC 31 as described on RB: 68160page 2) were blended to produce a solid phase that would allow simultaneous detection of HCV antibodies and HCV antigens in a single reaction well. (The blended microparticles contained 0.19% solids, representing a mixture of 0.09% up's coated with C11-14 and 0.1% coated with HC31). The conjugates were also a mixture of two separate acridinium labeled proteins. Acridinium labeled C11-10 was utilized for HCV antigen detection (recognizing HCV antigens captured on the C11-14 microparticles) and an acridinium labeled monoclonal antibodies against biotin-labeled goat anti-human IgG (presented as a pre-complex - see RB: 52226m301) was utilized to detect human anti-HCV IgG bound to the HC-31 coated microparticles.

Results

The panel described above was run on 3 different PRISM-based assays. One of the assays detected HCV antibodies, a second test detected HCV antigens and a third test (the combo assay) detected both HCV antibodies and HCV antigens.

Samples have a positive to negative ratio (P/N) ratio of 3.0 or greater were considered positive. The data presented in the table on RB68160page 8 indicate that the combo assay allows detection both of antibody positive samples (e.g. panel E2 1/20, ProMed 9992161, PC JV 016929 and PC JV 17220) and HCV antigen positive samples (Sera Tec panel members 5-9). Thus, this single combo assay performed in a single reaction well detects most of the samples that were positive in two separately performed assays, the HCV antibody test and the HCV antigen test. This is the first demonstration of a combo HCV antibody / HCV antigen test at Abbott Laboratories, and is the first example of the HCV antibody /antigen combo test ideas presented in Redbook 61,959: pages 1-8. Other iterations of the HCV combo test will be presented over the next several weeks/months.

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Cathy Koon

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ADULT INSTITUTE
RESEARCH DEPARTMENT

PROJECT HCV combo Assay *

EXP. OR CODE NO.

Title: HCV combo Assay: Blended up and Blended conjugate

Purpose: To blend the HCV core peptide coated ups, NS3NS4 coated up, c11-14 coated ups together and c11-10, aHigG Acr* conjugate together for HCV combo first demonstration.

(Core peptide Ag + NS3NS4 for Ab Detection)
c11-14 Ab coated up for Ag Detection)

Materials and Samples

RB: 68160001 and 68160011.

Preparation:

Add Avidin 11-28 (df = 20) and NS3NS4 (df = 10) and c11-14 (0.09% seradyn)

Add conjugate c11-10 (50ng/ml) and aHigG Acr* (10ng/ml)

Results:



HCV Combo (11-28, NS3NS4, c11-14 c11-10, aHigG) 9 12

Conclusions:

The combo assay successfully detected all the Ab pos. samples and Ag positive samples.

Next Steps:

Dilute the AhigG conjugate to 7ng/ml and 2 ng/ml

1023
HCV COMBO 11-28,NS3NS4
C11-14 C11-10 AHIGG

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HCV Combo Assay
Blended ups: HCV Core Bio-11-28(Df=20)+ NS3NS4 HCV Ag (DF=10)+ C11-14(0.09%)
Conjugate: c11-10(50ng/ml) + aHigG Acr*(10ng/ml)
Washes: HCV Ag Assay Transfer: HIV Ag Devit5, Final wash: HCV Ag final wash prep 8/1/2000
SDB: HCV Ab (6A52Q)
S/A (1023) configuration: HCV

	SubA	SubB	Mean	P/N
PC (Ab)	3454	3656	3555	4.84
PC (Ag)	5303	6014	5658.5	7.71
PC(Ag)	4288	3722	4005	5.46
NC[9990164]	637	831	734	
E2 1/20	12480	13092	12788	17.42
ProMed 9990196	11449			15.60
9990164	15			
9990162	10060		10060	13.71
9990212	13925		13925	18.97
Sero-Tec panels #3	856		856	1.30
4	2347		2347	
5	3400		3400	4.64
6	4673		4673	5.37
7	4265		4265	5.64
8	3045		3045	4.35

*Materials: Code/List/Desc/Lot see RB: 68160

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*Cont. from page #17*1023
BO SEROCONVERSION

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ups	Conjugate	SubA	SubB	Mean	P/N
11-28+NS3NS4+C11-14	50ng/ml + 7ng/ml	NC	452	456	454.00
	C11-10 + H3Ag*	E2 (1/20)	7753	7804	7778.50
	57±51	PC (Ag)	4462	4407	4434.50
		9990212	7611		7611.
		9996196	6878		6878
		9996164	5133		5133
		Sero-Tec panel #3	1257	1257	2.77
			2540	2640	5.81
			2870	2870	6.32
			4917	4917	10.83
		BBI HCv sero 907 #1	5595	5595	12.32
			2707	2707	5.96
			2614	2614	5.76
			2701	2701	5.95
			2343	2343	5.16
			4443	4443	9.79
			8147	8147	17.94

ups	Conjugate	SubA	SubB	Mean	2ng/ml P/N	7ng/ml P/N
11-28+NS3NS4+C11-14	50ng/ml + 2ng/ml	NC	277	246	261.50	17.13
"	"	E2 (1/20)	2831	2879	2855.00	9.77
		PC (Ag)	4213	4099	4156.00	16.76
		9990212	2773		2773	10.60
		9996196	2249		2249	8.60
		9996164	1918		1918	7.33
		Sero-Tec panel #3	927	937	934	2.77
			2299	2299	8.79	5.81
			3002	3002	11.48	6.32
			5112	5112	19.55	10.83
		BBI HCv sero 907 #1	3754	3754	14.36	12.32
			3363	3363	12.86	5.96
			2230	2230	8.53	5.76
			2404	2404	9.19	5.95
			1743	1743	6.67	5.16
			2084	2084	7.97	9.79
			1566	1566	5.99	17.94

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ABBOTT LABORATORIES . BOOK NO. 68,160
RESEARCH DEPARTMENT

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PROJECT

EXP. OR CODE NO.

Cont. from page # 18

BOSTON BIOMEDICA, INC.

Anti-HCV Seroconversion Panel (PHV907)

HCV Genotype 1A

Panel Member	Bleed Date	Day No.	Virus Type	Initial titer	Combo data	Cofactor Q7	Cofactor Q2	Alberto	Rochelle
			HCV	S/60		ng/ml	ng/ml	Ab Only	Anti Co
				S/60		S/60	S/60	1st	2nd
PHV907-1		0		0.1	0.0	12.3	14.4	25.68	3 x 10e8
PHV907-2		4		0.1	0.0	0.0	12.9	20.41	2 x 10e8
PHV907-3		7		0.1	0.0	5.6	0.5	17.88	1 x 10e8
PHV907-4		13		0.2	0.1	0.0	9.2	15.98	1 x 10e8
PHV907-5		18		0.8	0.5	5.2	0.7	6.88	1 x 10e8
PHV907-6		21		1.4	1.0	9.8	0.0	7.90	1 x 10e8
PHV907-7		164		>5.0	>5.0	18.0	6.0	0.70	nd

Data above demonstrates on seven member seroconversion panel, that HCV RNA and HCV Antigens can be detected from the first bleed date through the sixth bleed date, but the seventh bleed date is negative for HCV antigen. The antibody tests Ortho 3.0 and Abbott 3.0 failed to detect antibodies in the first five bleed dates (through

The combo test detected exposure to HCV for all seven bleed dates.

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WITNESSED BY Cathy Cook DATE

PROJECT

PRISM HCV Ag/Hb comboEXP. OR CODE NO. HCV combo assay Random Denver PopulationReagents: Same as lot # 6816017.

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NA
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HCV Combo Assay Population

	SubA	SubB	Mean	P/N	Cutoff(3nc)	S/CO	Cutoff(2.5nc)	S/CO	Cutoff(2.33nc)	S/CO
	3737	3854	3795.6	15.30	744	6.10	620	6.12	677.84	6.57
PC (Ag)	2949	2785	2867	11.66	3.86	0.24	0.29	0.26	4.86	4.86
E2 (1/20)	214	282	248			0.22	0.26	0.26		
NC (99800)						0.39	0.47	0.51		
GCRBC plasma #1	182	163				0.23	0.28	0.30		
2	3	292				0.36	0.43	0.46		
	4	172				0.23	0.28	0.30		
	6	265				0.36	0.43	0.46		
	8	172				0.23	0.28	0.30		
	7	271				0.36	0.44	0.47		
	8	329				0.44	0.63	0.67		
	9	200				0.27	0.32	0.35		
	10	247				0.33	0.43	0.43		
	11	196				0.26	0.32	0.34		
	12	246				0.33	0.40	0.43		
	13	432				0.68	0.70	0.75		
	14	214				0.29	0.35	0.37		
	15	161				0.22	0.26	0.28		
	16	215				0.29	0.35	0.37		
	17	140				0.19	0.23	0.24		
	18	227				0.31	0.37	0.39		
	19	284				0.38	0.46	0.49		
	20	209				0.28	0.34	0.36		
	21	200				0.27	0.32	0.35		
	22	185				0.25	0.30	0.32		
	23	248				0.33	0.40	0.43		
	24	209				0.28	0.34	0.36		
	25	291				0.39	0.47	0.50		
	26	241				0.32	0.39	0.42		

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Lily Jin

DATE

WITNESSED BY

Victor J. Woon

DATE